

What is claimed is:

1. An input data generating method generating data input to an electromagnetic field intensity calculating device which calculates an intensity of an electromagnetic field emitted from an electric circuit device having a metal cabinet, comprising:

extracting surface data of the metal cabinet from three-dimensional data of the electric circuit device;

10 partitioning a surface corresponding to the surface data into quadrilateral meshes; and

outputting data partitioned into meshes to the electromagnetic field intensity calculating device.

15 2. The input data generating method according to claim 1, further comprising:

extracting data of a same surface composed of a plurality of surfaces existing on a front or a back of a metal plate which configures the metal cabinet from 20 a plurality of pieces of surface data, if the surface data is composed of the plurality of pieces of surface data including the front and the back of the metal plate; and

partitioning each of the plurality of surfaces 25 configuring the same surface into quadrilateral meshes.

20627887.02902

3. The input data generating method according to claim 2, further comprising

5 extracting control points corresponding to vertexes of a quadrilateral, when each of the plurality of surfaces is approximated to the quadrilateral by using data of control points as surface data of each of the plurality of surfaces configuring the same surface.

10

4. The input data generating method according to claim 3, further comprising

15 recognizing the control points corresponding to the vertexes of the quadrilateral which approximates each of the plurality of surfaces to be 4 vertexes, and equally partitioning a flat or a curved surface determined by data of the control points for respective pairs of opposite sides so that the flat or the curved surface is partitioned into the quadrilateral meshes.

20

5. The input data generating method according to claim 1, further comprising:

25 partitioning each of a plurality of surfaces into quadrilateral meshes, if the surface data of the metal cabinet is data corresponding to the plurality of

surfaces;

making a comparison between coordinates of partitioning points on two sides which can possibly be a side shared by contiguous surfaces among the plurality 5 of surfaces;

recognizing data of the partitioning points to be data shared by the contiguous surfaces, if the coordinates of the partitioning points are determined to match within a preset tolerance; and

10 outputting data partitioned into meshes, which include the shared data, to the electromagnetic field intensity calculating device.

6. The input data generating method according 15 to claim 1, further comprising

repartitioning the quadrilateral meshes by aligning the surface corresponding to the surface data of the metal cabinet with a shape of a surface whose material is different from the metal cabinet, and which 20 is superposed on the corresponding surface and has an area smaller than the corresponding surface, exists, after the corresponding surface is partitioned into the quadrilateral meshes; and

25 outputting data which is partitioned into meshes and further repartitioned to the electromagnetic field

intensity calculating device.

7. A computer-readable storage medium used by
a computer generating data input to an electromagnetic
5 field intensity calculating device that calculates an
intensity of an electromagnetic field emitted from an
electric circuit device having a metal cabinet, on which
is recorded a program for causing the computer to execute
a process, the process comprising:

10 receiving specification of one or more surfaces
among surfaces configuring the metal cabinet from a
user;

extracting surface data of a specified surface
from three-dimensional data of the electric circuit
15 device;

partitioning a surface corresponding to the
surface data into quadrilateral meshes; and

outputting data partitioned into meshes to the
electromagnetic field intensity calculating device.

20
8. A program, which is used by a computer
generating data input to an electromagnetic field
intensity calculating device that calculates an
intensity of an electromagnetic field emitted from an
25 electric circuit device having a metal cabinet, causing

the computer to execute a process, the process comprising:

5 receiving specification of one or more surfaces among surfaces configuring the metal cabinet from a user;

extracting surface data of a specified surface from three-dimensional data of the electric circuit device;

10 partitioning a surface corresponding to the surface data into quadrilateral meshes; and

outputting data partitioned into meshes to the electromagnetic field intensity calculating device.

9. A device generating data input to an electromagnetic field intensity calculating device calculating an intensity of an electromagnetic field emitted from an electric circuit device having a metal cabinet, comprising:

20 a surface data extracting unit extracting surface data of the metal cabinet from three-dimensional data of the electric circuit device;

a mesh partitioning unit partitioning a surface corresponding to the surface data into quadrilateral meshes; and

25 a generated data outputting unit outputting data

20057387-012901

partitioned into meshes to the electromagnetic field intensity calculating device.